

What is claimed is:

1. A heat-sensitive lithographic printing plate comprising
a substrate having a hydrophilic surface and
5 a heat-sensitive layer made of an alkali-soluble polymer formed on the surface
of the substrate, wherein
an advancing contact angle (θ^f) of the surface of the heat-sensitive layer with
water at 25°C is within a range from 70° to 110°, a receding contact angle (θ^{b2}) of the
surface of the heat-sensitive layer with water at 25°C after heating at 150°C for 3 minutes
10 is larger than a receding contact angle (θ^{b1}) of the surface of the heat-sensitive layer with
water at 25°C before heating, and a difference in receding contact angle before and after
heating, ($\theta^{b2} - \theta^{b1}$), is larger than 1° and is smaller than 40°.
2. The heat-sensitive lithographic printing plate according to claim 1, wherein the
15 receding contact angle (θ^{b1}) is within a range from 5° to 50° and the receding contact
angle (θ^{b2}) is within a range from 30° to 60°.
3. The heat-sensitive lithographic printing plate according to claim 1, wherein the
alkali-soluble polymer is a copolymer of a monomer having a carboxyl group and a
20 hydrophobic monomer, and the heat-sensitive layer is formed by applying a heat-
sensitive composition, which is prepared by dissolving the copolymer in an aqueous
alkaline solution, on the surface of the substrate and drying the heat-sensitive
composition.
- 25 4. The heat-sensitive lithographic printing plate according to claim 3, wherein the

alkali-soluble polymer has an acid value of 40 to 500 and a weight-average molecular weight of 5,000 to 200,000.

5. The heat-sensitive lithographic printing plate according to claim 3, wherein the
5 monomer having a carboxyl group is acrylic acid or methacrylic acid, and the hydrophobic monomer is at least one type of a monomer selected from the group consisting of styrene, styrene derivatives and methyl methacrylate.

6. The heat-sensitive lithographic printing plate according to claim 3, wherein the
10 monomer having a carboxyl group is acrylic acid, the hydrophobic monomer is styrene, and a weight ratio of acrylic acid to styrene is within a range from 40:60 to 15:85.

7. The heat-sensitive lithographic printing plate according to claim 3, wherein the
monomer having a carboxyl group is acrylic acid, the hydrophobic monomer is methyl
15 methacrylate, and a weight ratio of acrylic acid to methyl methacrylate is within a range from 14:86 to 5:95.

8. An image forming method, which comprises forming a latent image on a heat-sensitive layer of the heat-sensitive lithographic printing plate of claim 1 using heat
20 generated upon irradiation with laser light, and developing the heat-sensitive layer using an alkaline developing solution of pH 9 to 14.